

## 10 CSR 20-6.300 Concentrated Animal Feeding Operations

*PURPOSE: This rule sets forth the permitting and other requirements for concentrated animal feeding operations. Minimum federal requirements are incorporated and additional state requirements are included to provide increased environmental protection of sensitive watersheds. This rule consolidates requirements for animal feeding operations from other Chapter 6 rules.*

*PUBLISHER'S NOTE: The secretary of state has determined that the publication of the entire text of the material which is incorporated by reference as a portion of this rule would be unduly cumbersome or expensive. This material as incorporated by reference in this rule shall be maintained by the agency at its headquarters and shall be made available to the public for inspection and copying at no more than the actual cost of reproduction. This note applies only to the reference material. The entire text of the rule is printed here.*

### (1) Definitions.

(A) Definitions as set forth in 10 CSR 20-2.010 and **10 CSR 20-8.300** shall apply to the terms when used in this rule unless otherwise defined in subsection (B) below.

(B) Other applicable definitions are incorporated as follows:

1. Animal—Domestic animals, fowls, or other types of livestock except for aquatic animals;
2. Animal unit—A unit of measurement to compare various animal types at an animal feeding operation. One (1) animal unit equals the following: 1.0 beef cow or feeder, cow/calf pair, veal calf, or dairy heifer; 0.5 horse; 0.7 mature dairy cow; 2.5 swine weighing over 55 pounds; 10 swine weighing less than 55 pounds; 10 sheep, lamb, or meat and dairy goats; 30 chicken laying hens or broilers with a wet handling system; 82 chicken laying hens without a wet handling system; 55 turkeys in grow-out phase; 125 chicken broilers, chicken pullets, or turkey poults in brood phase without a wet handling system;
3. Animal unit equivalent—Any unique animal type, not listed, that has a similar manure characteristic as one of the listed animal unit categories. The department shall make the determination of an animal unit equivalent based upon manure characteristics that include manure volume and nutrient concentration;
4. Animal feeding operation (AFO)—A lot, building, or complex at an operating location where animals are stabled or confined and fed or maintained for a total of forty-five (45) days or more in any twelve- (12-) month period, and crops, vegetation, forage growth, or post-harvest residues cannot be sustained over at least fifty percent (50%) of the animal confinement area within the normal crop growing season;
5. Catastrophic storm event—A precipitation event of twenty-four- (24-) hour duration that exceeds the twenty-five- (25-) year, twenty-four- (24-) hour storm event as defined by the most recent publication of the National Weather Service Climate Atlas;
6. Chronic weather event—The chronic weather event will be based upon an evaluation of the [one-in-]ten ([1-in-]10) year return rainfall frequency over a ten- (10-) day, ninety- (90-) day, one hundred eighty- (180-) day, and three hundred sixty-five- (365-) day operating period. It is preferred the University of Missouri's Missouri Climate Center will determine, within a reasonable time frame, when a chronic weather event is occurring for any given county in the state;
7. Class I and Class II operation—An AFO or CAFO's class size is based on the operating level in animal units of an individual animal type at one (1) operating location. Once a CAFO becomes a Class I operation, the animal units of all confined animals at the operating location are summed to determine whether the operation is Class IA, IB, or IC. Operations that are smaller than the Class II category are considered unclassified. The class categories, sorted by animal type, are presented in the following chart:

**1 Animal Unit =**

1.0	Beef cow, feeder, veal calf, cow/calf pair, and dairy heifer	10	Sheep, lambs, and meat and dairy goats
0.5	Horses	30	Chicken laying hens, pullets, and broilers with a wet handling system
0.7	Mature Dairy cows	55	Turkeys in growout phase
2.5	Swine weighing over 55 pounds	82	Chicken laying hens without a wet handling system
10	Swine weighing under 55 pounds	125	Chicken broilers and pullets, and turkey poults in brood phase, all without a wet handling system

Animal Class Category	Class IA 7,000 AUs*	Class IB 3,000 to 6,999 AUs*	Class IC 1,000 to 2,999 AUs*	Class II 300 to 999 AUs*
Beef cows, feeder cattle, veal calves, cow/calf pairs, and dairy heifers	7,000	3,000 to 6,999	1,000 to 2,999	300 to 999
Horses	3,500	1,500 to 3,499	500 to 1,499	150 to 499
Mature Dairy Cows	4,900	2,100 to 4,899	700 to 2,099	200 to 699
Swine weighing over 55 pounds	17,500	7,500 to 17,499	2,500 to 7,499	750 to 2,499
Swine weighing under 55 pounds	70,000	30,000 to 69,999	10,000 to 29,999	3,000 to 9,999
Sheep, lambs, meat and dairy goats	70,000	30,000 to 69,999	10,000 to 29,999	3,000 to 9,999
Chicken laying hens, pullets, and broilers with a wet handling system	210,000	90,000 to 209,999	30,000 to 89,999	9,000 to 29,999
Turkeys in growout phase	385,000	165,000 to 384,999	55,000 to 164,999	16,500 to 54,999
Chicken laying hens without a wet handling system	574,000	246,000 to 573,999	82,000 to 245,999	24,500 to 81,999
Chicken broilers and pullets, and turkey poults in brood phase, all without a wet handling system	875,000	375,000 to 874,999	125,000 to 374,999	37,500 to 124,999

\*Animal Units

8. Concentrated animal feeding operation (CAFO)—An AFO that meets one (1) of the following criteria:
- A. Class I operation;
  - B. Class II operation where either one
    - (1) of the following conditions are met:
      - (I) Pollutants are discharged directly into waters of the state through a manmade ditch, flush system, or other similar man-made device; or
      - (II) Pollutants are discharged directly into waters of the state which originate outside of and pass over, across, or through the production area or otherwise come into contact with the animals confined in the operation; or
    - C. An unclassified operation that is designated as a CAFO in accordance with subsection (2)(D) of this rule;
9. Critical watersheds—defined as the following:
- A. Watersheds for public drinking water lakes (L1 lakes defined in 10 CSR 20-7.031 and identified in Table G);
  - B. Watersheds located upstream away from the dam from all drinking water intake structures on lakes including the watershed of Table Rock Lake;
  - C. Areas in the watershed and within five (5) miles upstream of any stream or river drinking water intake structure, other than those intake structures on the Missouri and Mississippi Rivers; and
  - D. Watersheds of the Current (headwaters to Northern Ripley County Line), Eleven Point (headwaters to Hwy. 142), and Jacks Fork (headwaters to mouth) Rivers;

**10. Current Nutrient Management Plan (NMP) – A NMP is considered to be current if the field specific application rates and field specific assessment for phosphorous loss are based on soil tests results less than five (5) years old.**

**Comment [GC1]:** Removed “it includes the current operating conditions, and if”

[10]11. Discharge—A CAFO is said to discharge when it is designed, constructed, operated, or maintained such that a discharge of process waste to surface waters of the state will occur. This does not include CAFOs that merely have the potential to discharge to waters of the state. A CAFO that discharges could include one that continuously discharges process wastewater to surface waters of the state, as well as one that may only have an intermittent and sporadic discharge. Discharges of agricultural storm water is a nonpoint source and therefore not included within this definition;

[11]12. Dry process waste—A process waste mixture which may include manure, litter, or compost (including bedding, compost, **mortality by-products**, or other raw materials which is commingled with manure) and has less than seventy-five percent (75%) moisture **content** and does not contain any free draining liquids;

**Comment [GC2]:** Removed “is stackable,”

[12]13. Flush system—Any animal waste moving or removing system utilizing the force of periodic liquid flushing as the primary mechanism for removing manure from animal containment buildings, as opposed to a primarily mechanical or automatic device. This definition does not include confinement buildings that utilize deep or shallow underfloor pits with pull plug devices;

[13]14. Land application area—Agricultural land which is under the operational control of the CAFO owner or operator, whether it is owned, rented, or leased, to which manure, litter, or process wastewater from the production area is or may be applied;

[14]15. Multi-year phosphorus application—Phosphorus applied to a field in excess of the crop needs for that year. When multi-year phosphorus applications are followed, no additional manure, litter, or process wastewater is applied to the same land in subsequent years until the applied phosphorus has been removed from the field via harvest and crop removal or until subsequent soil testing allows for nitrogen-based rates;

[15]16. No-discharge operation—A CAFO is considered no-discharge if the operation is designed, constructed, operated, and maintained in a manner such that the CAFO will not discharge to waters of the state. A discharge of agricultural storm water is a nonpoint source and therefore not included within this definition;

[16]17. Occupied residence—A residential dwelling which is inhabited at least fifty percent (50%) of the year;

**18. Operating level (animal units) – The operating level is the maximum number of animals in confinement during a month. If an operation confines or stables one thousand (1000) animal units or more for a total of forty-five (45) days or more in any twelve (12) month period it shall be considered a Class I CAFO. If a Class I CAFO has reduced animal numbers and is operating at a Class II level or below, the operation can request termination of their permit. Documentation shall be provided of animal numbers for the previous twelve (12) months. If the operation increases animal numbers to the Class I operating size, the owner or operator of the CAFO shall apply for an operating permit.**

**Comment [GC3]:** added

[17]19. Operating location—For purposes of determining CAFO classification, an operating location includes all contiguous lands owned, operated, or controlled by one (1) person or by two (2) or more persons jointly or as tenants in common or noncontiguous lands if they use a common area for the land application of wastes. State and county roads are not considered property boundaries for purposes of this rule. Two (2) or more animal feeding operations under a common ownership are

considered to be a single animal feeding operation if they adjoin each other or if they use a common area for the land application of wastes;

[18]20. Overflow—The discharge of process wastewater resulting from the filling of wastewater or manure storage structures beyond the point at which no more manure, process wastewater, or stormwater can be contained by the structure;

[19]21. Process wastewater—Water which carries or contains manure, including manure commingled with litter, compost, or other animal production waste materials used in the operation of the CAFO. Also includes water directly used in the operation of the CAFO for any or all of the following: spillage or overflow from confined animal or poultry watering systems; washing, cleaning, or flushing pens, barns, manure pits, or other CAFO facilities; and water resulting from the washing, or spray cooling of confined animals;

[20]22. Production area—The non-vegetated portions of an operation where manure, litter, or process wastewater from the AFO is generated, stored, and/or managed. The production area includes the animal confinement area, the manure storage area, the raw materials storage area, and the waste containment areas. The animal confinement area includes, but is not limited to, open lots, housed lots, feedlots, confinement houses, stall barns, free stall barns, milkrooms, milking centers, cowyards, barnyards, medication pens, walkers, animal walkways, and stables. The manure storage area includes, but is not limited to, lagoons, runoff ponds, storage sheds, stockpiles, under house or pit storages, liquid impoundments, static piles, and composting piles. The raw materials storage area includes, but is not limited to, feed and silage silos, pads, and bunkers. The waste containment area includes, but is not limited to, settling basins and areas within berms and diversions which separate uncontaminated storm water. Also included in the definition of production area is any egg washing or egg processing operation and any area used in the storage, treatment, or disposal of animal mortalities;

[21]23. Public building—A building open to and used routinely by the public for public purposes;

[22]24. Vegetated buffer—A narrow, permanent strip of dense perennial vegetation established parallel to the contours of and perpendicular to the dominant slope of the field for the purposes of slowing water runoff, enhancing water infiltration, and minimizing the risk of any potential nutrients or pollutants from leaving the field and reaching surface waters; and

**25. Waste management system - includes all structures and equipment, used to collect, store, transfer or treat; manure, litter, and/or process waste water from the time of initial collection through land application. A waste management system will be considered in operation when animals are placed in confinement.**

[23]26. Wet handling system—Wet handling system is the handling of process wastewater that contains more than seventy five percent (75%) moisture content or has free draining liquids. A wet handling system includes, but is not limited to, lagoons, pits, tanks, all gravity outfall lines, recycle pump stations, recycle force mains, and appurtenances.

(2) Applicability and Application for Coverage.

(A) Scope of Rule. This rule applies solely to manure, litter, and/or process wastewater management systems at concentrated animal feeding operations (CAFOs). CAFOs are point sources, and are subject to both state and federal National Pollutant Discharge Elimination System (NPDES) regulations in accordance with sections 640.710 and 644.026, RSMo.

(B) Permit Coverage Required— Any CAFO owner or operator **shall obtain the applicable permit(s)** *[that proposes the construction, modification, expansion, and/or operation of a for manure, litter, and/or process wastewater management system at a concentrated animal feeding operation shall obtain one (1) or more of the following permits]* listed below unless otherwise exempted under subsection (2)(E) of this rule.

1. Construction permit—All existing or proposed Class I CAFOs must obtain a construction permit prior to the *[initial]* construction, *[installation,]* **or major** modification, *[or expansion]* of an *[manure, litter, or process wastewater management system]* **earthen storage structure to hold, convey, contain, store, or treat domestic, agricultural or industrial process wastewater.**

2. NPDES permit—Owners or operators of Class I CAFOs that discharge must obtain a state NPDES operating permit before any discharge occurs. Class I CAFOs that do not discharge may also apply for coverage under an NPDES permit.

3. State no-discharge permit—Owners or operators of Class I CAFOs that do not *[intend to]* discharge *[or propose to discharge]* and do not apply for coverage under a state NPDES permit shall obtain and maintain coverage under a state no-discharge operating permit.

(C) Voluntary Permit Coverage—Any owner or operator of a Class II or smaller AFO, which is not otherwise designated as a CAFO, may on their own behalf elect to be covered under one (1) of the above *[three (3)]* **operating** permits. Any person making such an election will be subject to all terms and conditions of the permit unless and until permit coverage is terminated.

(D) CAFO Designation at Class II Size AFOs.

1. The department may designate an AFO as a concentrated animal feeding operation upon determining that it is a significant contributor of pollutants to waters of the state. In making such designation, the department shall consider the following factors:

- A. The size of the AFO and the amount of wastes reaching waters of the state;
- B. The location of the AFO relative to waters of the state;
- C. The means of conveyance of animal wastes and process waste into waters of the state;
- D. The slope, vegetation, rainfall, and other factors affecting the likelihood or frequency of discharge of animal wastes manure and process waste into waters of the state; and
- E. Other relevant factors.

2. No AFO shall be designated under this section unless the department has conducted an on-site inspection of the operation and determined that the operation should and could be regulated as a concentrated animal feeding operation. In addition, no AFO with number of animals below a Class II size operation may be designated as a CAFO unless—

- A. Pollutants are discharged into waters of the state through a manmade ditch, flushing system, or other similar manmade device; or
- B. Pollutants are discharged directly into the waters of the state which originate outside of the AFO and pass over, across, or through the AFO, or otherwise come into direct contact with the animals confined in the operation.

(E) Exemptions.

1. Pilot projects or demonstration projects for beneficial use **that do not exceed a period of one (1) year**, may receive construction **and/or operating** permit exemption by written approval from the department. **The department may extend the permit exemption for up to one (1) additional year.** A[n] construction **and/or** operating permit application shall be submitted at least ninety (90) days prior to end of the demonstration period if the operation intends to continue use of the pilot project **unless other-wise exempted under this rule.**

2. **Construction-related activities other than those described in paragraph (B)1, shall be exempt from construction permit requirements. All exempted construction activities that are designed to hold, convey, contain, store, or treat manure, litter or process waste shall be designed by a professional engineer registered in Missouri in accordance** *[permits are not required for the construction or alteration of mortality composters or other storage buildings for dry process waste when the compost operation or dry process waste storage is located within a roofed building and the storage floor complies]* **with this rule and the requirements in 10 CSR 20-8.300, and shall be constructed according to the designed plans. The new structures may require issuance an operating permit, or letter of authorization prior to being operated.** Engineering plans and specifications as well as as-builts shall be available to the department upon request.

3. *[Construction permits are not required for minor piping changes, and other modifications.]* **Construction activities that are considered m[M]inor modifications to an earthen storage structure include, but are not limited to, aeration equipment, like for like replacement, piping changes, fencing, and access roads. *[small sections of buried wastewater lines, normal repair or replacement of existing wastewater lines, installation of manholes, wet wells, and other changes that do not significantly impact the normal operation of the waste management system.]* For construction activities not listed, a request for approval for construction permit exemption must be submitted in writing to the department.**

**Sludge drying equipment**

**4. Stormwater, as defined in 10 CSR 20-6.200**

**5. Industrial facilities connecting to a publicly owned treatment plant**

**6. Aeration equipment**

**7. Like for like replacement**

**8. Technologies evaluated and constructed under other Department Programs**

**9. Dechlorination Equipment**

**10. Minor Projects that may change equipment or operations, but do not affect the overall capacity of the treatment plant and may improve treatment, including:**

**A. Internal piping changes, including outfall relocation**

**B. pH adjustment**

**C. Addition of storage tanks**

**D. Headworks**

**E. Grit removal equipment**

**Comment [GC4]:** Will we still need to do these?

**Comment [GC5]:** Those listed in proposed 6.010

**F. Administrative buildings**  
**G. Fences and access roads**  
**H. Flow measuring devices**  
**I. Mixing Equipment**

4. In accordance with section 640.758, RSMo, livestock markets and auctions are exempt from the provisions of 10 CSR 20-6.300(3)(B)-(C), 10 CSR 20-6.300(3)(H), and 10 CSR 20-6.300(7).

5. Permits are not required for nonpoint source discharges, agricultural stormwater discharges, and return flows from irrigated agriculture. A precipitation related discharge of manure, litter, or process wastewater from land application areas under the control of a CAFO is considered an agricultural stormwater discharge when manure, litter, or process wastewater is applied in accordance with site-specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater.

6. If a construction permit is waived by the department, or for some other reason not required, part or all of the information necessary to issue a construction permit may be required with the application for the operating permit.

(F) Construction and Operating Permit Applications. This section describes the application process and requirements for CAFO construction and general NPDES and state no-discharge operating permits. **A separate application for each operating location must be submitted to the department.**

1. An application for a construction permit **should be submitted to the department at least one hundred eighty (180) days in advance of the date on which the proposed construction will begin and** shall include the permit application documents required within the CAFO manure storage design rule at 10 CSR 20-8.300. The construction application shall also include the application for an operating permit along with all applicable permit fees. The department may require other information as necessary to determine compliance with the Missouri Clean Water Law and these regulations.

[4]2. The department will not examine the adequacy or efficiency of the structural, mechanical, or electrical components of the waste management systems, only adherence to rules and regulations. The issuance of permits will not include approval of such features.

**3. An application for a new or modified operating permit for an AFO or CAFO for which a construction permit was not required, shall be submitted at least ninety (90) days prior to the proposed starting date of operation of the new or modified structure. The application shall include at a minimum the following documents:**

**A. Title page of engineering report or similar document including name and address of the operation, date the report was prepared, name and address of firm preparing the report, seal and signature of the engineer, and a statement indicating the project was designed in accordance with 10 CSR 20-8.300 and 10 CSR 20-6.300;**

**B. Narrative project summary. This shall include a summary of the existing and/or proposed modifications to operating conditions including the number of confinement buildings or areas, the total design capacity in animal units and actual animal numbers for each type of animal, and an explanation of the existing and/or proposed modifications to the waste management system;**

**C. The calculations showing the amount of manure generated annually, storage volume calculations and days of storage of all manure storage structures, including mortality composter;**

**D. A recent aerial or topographic map showing the extent of the production area including;**  
**I. all existing and proposed confinement buildings, open lots, manure storage structures,**  
**II. surface waters and areas subject to a one-hundred (100) year flood event within or adjacent to the production area, and**  
**III. production area setback distances in accordance with 10 CSR 20-8.300(5)(B);**

**E. Nutrient Management Plan;**  
**I. NPDES permit – applications for a new or modified permit shall include the operations nutrient management plan, or**  
**II. State no-discharge permit – applications for a new permit shall include the operations nutrient management plan,**

**F. Applications for Class I CAFOs shall also include;**  
**I. A aerial or topographic map that meets the requirement of 10 CSR 20-6.300(3)(C)4;**

**II. Proof of neighbor notice to all parties listed in 10 CSR 20-6.300(3)(C)2; and**

**III. All neighbor comment letters received by the CAFO owner, operator or their representative in accordance with 10 CSR 20-6.300(3)(C). Comment letters received by the department will be added to the application upon receipt.**

**4. Applications for renewal of general operating permits shall be submitted at least thirty (30) days prior to expiration of the current operating permit. For renewal of NPDES permits a copy of the operations current nutrient management plan shall be submitted if it has not previously been submitted.**

[6]5. When an application is submitted incomplete [*and missing key components*] **or any of the required permit documents deficient, or if additional information is needed including engineering designs, the department will act in one (1) of the following ways:**

A. The department may return the entire permit application back to the applicant for re-submittal, or[.]

B. [*When an application is submitted sufficiently complete, but is otherwise deficient, t*]The applicant and the applicant's engineer will be notified of the deficiency and will be provided time to address department comments and submit corrections. Processing of the application may be placed on hold until the applicant has corrected identified deficiencies.

[7]6. Applicants who fail to correct deficiencies and/or fail to satisfy all department comments after two (2) certified department comment letters shall have the application returned as incomplete and the construction and operating permit fees shall be forfeited. The department will grant reasonable time extensions when the applicant requests additional time to respond to department comments, however, such requests must be in writing and must occur within the time frame set by the department.

[8]7. When the department has received all documents and information necessary for a properly completed construction **or operating** permit application, including appropriate permit fees, the department will, upon completion of the review and approval of said documents, act in one (1) of the following ways:

A. For an operation seeking coverage under the state no-discharge general operating permit the department will issue both the construction **permit, if required**, and the state no-discharge general operating permit concurrently; or

B. For an operation seeking coverage under the NPDES permit the department will post for fifteen (15) days on the department's webpage a notice of the pending CAFO NPDES permit. The notice will include an announcement of the opportunity for public review and comment on [*a*] **the CAFO's nutrient management plan and draft NPDES permit**. The public may request, in writing, a fifteen- (15-) day extension to the public notice period for a permit. The department will consider all comments before issuing the construction [*and*] **or operating permit**. The construction **permit, if required** and NPDES operating permit will be issued concurrently. [*A public notice will not be required prior to the issuance of a construction permit for a manure or wastewater pipeline or land application system.*]

[9]8. Construction permits shall expire [one (1)] **two (2)** years from the date of issuance unless the permittee applies for an extension. [*The department shall extend construction permits only one (1) time for a period not to exceed the originally issued effective period.*] An applicant requesting extension shall show that there have been no substantial changes in the original project. Extension requests [*should*] **shall** be received thirty (30) days prior to permit expiration.

[10]9. When a construction permit is issued for a project for which the construction period is known in advance to require longer than [one (1)] **two (2)** years from the date of issuance, the department may issue a permit allowing a period of time greater than [one (1)] **two (2)** years upon the applicant showing that the period of time is necessary and that no substantial changes in the project will be made without first notifying the department. If there are substantial changes, the department may require the applicant to apply for a new construction permit.

[11]10. Upon completion of construction [*and prior to the expiration date of the construction permit, the owner or operator*] for which a construction permit was issued, **the department shall require that an engineer certify in writing by means of submitting the Statement of Work Completed form that the project has been completed in accordance with its submitted plans and specifications, along with an electronic copy of as-builts. A representative of the department may inspect the completed work in order to determine that the completed work substantially adheres to the approved plans and specifications and** [*shall submit in writing on forms approved by the department the engineering certification of the newly constructed systems. Engineering certification will document that the project was completed in accordance with approved plans and specifications. If changes were made during construction, as-built drawings of said changes shall be submitted with the certification*] in accordance with 10 CSR 20-8.300.

(3) Permit Requirements.

(A) General Requirements.

1. All permits required by this rule shall be issued in accordance with applicable provisions of 10 CSR 20-6.010, 10 CSR 20-6.011, 10 CSR 20-6.020, and 10 CSR 20-8.300. When the state regulations referenced within these rules are found to be incompatible with the requirements of 10 CSR 20-6.300, the provisions of 10 CSR 20-6.300 will take precedence.

2. For NPDES permits only—In addition to the state requirements found in this rule, all CAFO NPDES permits shall be issued in compliance with applicable federal regulation as set forth in 40 CFR 122.42(e), and 40 CFR 412, Subpart A through Subpart D, July 1, 2009, incorporated by reference, without any later amendments or additions, as published by the Office of the Federal Register, National Archives and Records Administration, Superintendent of Documents, Pittsburgh, PA 15250-7954.

3. Permits shall allow the CAFO to operate at an animal unit level not to exceed its respective class size (i.e., Class IC or IB). When determining the appropriate classification, a rolling twelve- (12-) month average method will be used. The rolling twelve- (12-) month average shall at no time exceed the upper threshold limit of the CAFO's designated class size. CAFOs may change animal numbers and weights within its respective class size; however, such changes must not subsequently violate applicable effluent limitations found in section (4) of this rule or adversely impact the storage and handling capacities of the waste management system and may be subject to other appropriate conditions or limitations.

4. Permits shall require the CAFO operator to provide the recipient of any manure, litter, or process wastewater transfer, a current manure nutrient analysis.

5. Mortalities must not be disposed of in any liquid manure or process wastewater system, unless specifically designed to handle them. Mortalities must be handled in such a way as to prevent the discharge of pollutants to surface waters and prevent the creation of a public health hazard.

(B) Buffer Distances.

1. All Class I concentrated animal feeding operations shall maintain a buffer distance between the nearest animal confinement building or wastewater storage structure and any existing public building or occupied residence. The public building or occupied residence will be considered existing if it is being used prior to the start of the neighbor notice requirements of subsection (C) of this section or thirty (30) days prior to **the date the department receives a construction or operating permit application**, whichever is later. Buffer distances shall be—

A. One thousand feet (1000') for concentrated animal feeding operations between 1,000 and 2,999 animal units (Class IC operations);

B. Two thousand feet (2,000') for concentrated animal feeding operations between 3,000 and 6,999 animal units (Class IB operations); and

C. Three thousand feet (3,000') for concentrated animal feeding operations equal to or greater than 7,000 animal units (Class IA).

2. A concentrated animal feeding operation and any future modification or expansion of a CAFO is exempt from buffer distance requirements, but not neighbor notice requirements, when it meets all of the following criteria:

A. The CAFO was in existence prior to June 25, 1996; and

B. The CAFO does not expand to a larger classification size.

3. When existing animal feeding operations or concentrated animal feeding operations expand to a larger class size, the setback distances shall not apply to the portion of the operation in existence as of June 25, 1996.

4. Buffer distances are not applicable to residences owned by the concentrated animal feeding operation or a residence from which a written agreement for operation is obtained from the owner of that residence. When shorter setback distances are proposed by the operation and allowed by the department, the written agreement for a shorter setback distance shall be recorded with the county recorder and filed in the chain of title for the property of the land owner agreeing to the shorter buffer distance.

5. The department may, upon review of the information contained in the **construction or operating permit** application, including, but not limited to, the prevailing winds, topography, and other local environmental factors, authorize a buffer distance which is less than the distance prescribed in this rule. The department's recommendation shall be sent to the governing body of the county in which such site is proposed. The department's authorized buffer distance shall become effective unless the county governing body rejects the department's recommendation by a majority vote at the next meeting of the governing body after the recommendation is received.

(C) Neighbor Notice Requirements

1. Prior to filing an application for a **construction or operating permit** with the department for a new or expanding Class I concentrated animal feeding operation, the following information shall be provided by way of a letter to all the parties listed in paragraph (3)(C)2. of this section:

A. The number of animals designed for the operation;  
B. A brief summary of the waste handling plan and general layout of the operation;  
C. The location and number of acres of the operation;  
D. Name, address, and telephone number of registered agent or owner;  
E. Notice that the operation and the department will accept written comments for a thirty- (30-) day period. The thirty- (30-) day notice period will begin on the day the construction **or operating** permit application is received by the department; and  
F. The address of the department office receiving comments.

2. The neighbor notice shall be provided to the following:  
A. The department's Water Protection Program;  
B. The county governing body; and  
C. All adjoining owners of property located within one and one-half (1 1/2) times the buffer distances specified in subsection (3)(B). Distances are to be measured from the nearest animal confinement building or wastewater storage structure to the adjoining property line.

3. The construction **or operating** permit applicant shall submit to the department proof the above notification has been sent. An acceptable form of proof includes copies of mail delivery confirmation receipts, return receipts, or other similar documentation.

4. All concentrated animal feeding operations shall submit, as part of the construction or operating permit application, an aerial or topographic map of the production area. The maps shall show the operation layout, buffer distances, property lines, and property owners within one and one-half (1 1/2) times the buffer distance.

5. The neighbor notice will expire if a construction **or operating** permit application has not been received by the department within twelve (12) months of initiating the neighbor notice requirements.

(D) Inspections. This subsection pertains to all CAFO operating permits.

1. Permits shall require the following minimum visual inspections at the production area:  
A. Weekly inspections of all storm water diversion devices, runoff diversion structures, and devices channeling contaminated storm water to the process wastewater storage;  
B. Daily inspection of water lines, including wastewater, drinking water, and cooling water lines that can be visually observed within the production area. The inspection of the drinking water and cooling water lines shall be limited to the lines that possess the ability to leak or drain to wastewater storage structures or may come in contact with any process waste;  
C. Weekly inspections of the manure, litter, and process wastewater impoundments. The inspection will note the level in liquid impoundments as indicated by the depth marker; and  
D. [*Periodically*] **Once per day when in use** conduct leak inspections on equipment used for land application of manure or process wastewater.

2. Permits shall require the following minimum visual inspections at the land application area:  
A. Monitoring of the perimeter of the application fields **once per day during land application** to ensure that applied wastewater does not run off the fields where applied;  
B. Monitor for drifting from spray irrigation; and  
C. Hourly inspections of aboveground irrigation pipelines when in use.

3. Permits shall require that any deficiencies found as a result of inspections be corrected as soon as possible.

(E) Record Keeping. This section pertains to all CAFO operating permits. All records required by this section shall be made available to the department upon request.

1. Permits shall require that the permittee maintain the following records for the production area for a period of five (5) years from the date they are created:  
A. A copy of construction and operating permits, permit applications, and the nutrient management plan;  
B. A once-per-week record documenting the daily visual inspections performed as required in 10 CSR 20-6.300(3)(D) above;  
C. Weekly records of the depth of the manure and process wastewater in the liquid impoundments as indicated by the depth marker;  
D. Records documenting any actions taken to correct deficiencies. Deficiencies not corrected within thirty (30) days shall be accompanied by an explanation of the factors preventing immediate correction;  
E. Records of mortalities management and practices used by the operation which verify compliance with 10 CSR 20-6.300(3)(A)5. above;  
F. Records of the date, time, and estimated volume of any overflow; and

G. Records of the date, recipient name and address, and approximate amount of manure, litter, or process wastewater transferred to another person.

2. Permits shall require that the permittee maintain the following records for the land application area for a period of five (5) years from the date they are created:

- A. Expected crop yields;
- B. The date(s) manure, litter, or process wastewater is applied to each field;
- C. Weather conditions at time of application and for twenty-four (24) hours prior to and following application;
- D. Test methods used to sample and analyze manure, litter, process wastewater, and soil;
- E. Results from manure, litter, process wastewater, and soil sampling;
- F. Explanation of the basis for determining manure application rates, as provided in the technical standards;
- G. Calculations showing the total nitrogen and phosphorus to be applied to each field, including sources other than manure, litter, or process wastewater;
- H. Total amount of nitrogen and phosphorus actually applied to each field, including documentation of calculations for the total amount applied;
- I. The method used to apply the manure, litter, or process wastewater; and
- J. Date(s) of manure application equipment inspection.

(F) Annual Reports. This section pertains to NPDES operating permits.

1. NPDES Permits shall require the submission of an annual report that includes:

- A. The number and type of animals confined at the operation;
- B. Estimated amount of total manure, litter, and process wastewater generated by the operation in the previous twelve (12) months;
- C. Estimated amount of total manure, litter, and process wastewater transferred to other persons by the operation in the previous twelve (12) months;
- D. Total number of acres for land application covered by the nutrient management plan;
- E. Total number of acres under control of the operation that were used for land application of manure, litter, and process wastewater in the previous twelve (12) months;
- F. Summary of all manure, litter, and process wastewater discharges from the production area to waters of the state that have occurred in the previous twelve (12) months, including date, time, and approximate volume; and
- G. A statement indicating whether the current version of the CAFO's nutrient management plan was developed or approved by a certified nutrient management planner.

(G) Best Management Practices (BMPs)— Each CAFO subject to [this section] 10 CSR 20-6.300, -that land applies manure, litter, or process wastewater must do so in accordance with the following practices:

1. Nutrient management plan. Permits shall require a nutrient management plan be developed and implemented according to the requirements of 10 CSR 20-6.300(5). The plan must also incorporate the requirements of paragraph (3)(G)2. below. New CAFOs that apply for a construction or operating permit and existing CAFOs that apply for a construction permit or modification of a NPDES operating permit must develop and submit a nutrient management plan with the construction or operating permit application, unless otherwise stipulated by the department. The CAFO must begin implementation of the plan upon the date of operating permit coverage; and

2. Manure, litter, and process wastewater applied to the land application area must minimize phosphorus and nitrogen transport from the field to surface waters in compliance with the Missouri Concentrated Animal Feeding Operation Nutrient Management Technical Standard (NMTS) approved by the Clean Water Commission on March 4, 2009, in accordance with 40 CFR 123.36, as published by the Missouri Department of Natural Resources, Division of Environmental Quality, Water Protection Program, PO Box 176, Jefferson City, MO 65102-0176, which is hereby incorporated by reference into this rule without any later amendments or additions, or an alternative but equally protective standard subsequently approved by the department that includes, but is not limited to, the following:

- A. Include a field-specific assessment of the potential for phosphorus transport from the field to surface waters and address the form, source, amount, timing, and method of application of nutrients on each field to achieve realistic production goals, while minimizing nitrogen and phosphorus movement to surface waters;
- B. Include appropriate flexibilities for any CAFO to implement nutrient management practices to comply with the technical standards, including consideration of multiyear phosphorus application on fields that do not have a high potential for phosphorus runoff to surface water, phased implementation of phosphorus-based nutrient management, and other components, as determined appropriate by the department;
- C. Require that manure be analyzed a minimum of once annually for nitrogen and phosphorus content, and soil be analyzed a minimum of once every five (5) years for phosphorus content. The results of these analyses are to be used in determining application rates for manure, litter, and other process wastewater;

D. Include conditions that will ensure manure, litter, and process wastewater applications are conducted in a manner that prevents surface runoff of process wastewater beyond the edge of the field. Such measures will include, but not be limited to, restricting the timing, soil conditions, and placement of manure during land application; and

E. Include appropriate land application setbacks that at a minimum require manure, litter, and process wastewater be land applied not closer than one hundred feet (100') from any down-gradient surface waters, open tile line intake structures, sinkholes, agricultural well heads, or other conduits to surface waters unless the operation complies with one (1) of the following compliance alternatives:

(I) For surface and subsurface applications, a setback consisting of a thirty-five foot (35'-) wide vegetated buffer where applications of manure, litter, or process wastewater are prohibited; or

(II) The CAFO demonstrates that a setback or buffer is not necessary because implementation of alternative conservation practices or field-specific conditions will provide pollutant reductions equivalent or better than the reductions that would be achieved by the one hundred foot (100') setback.

(H) Class IA Requirements. This section pertains to Class IA CAFOs only.

1. The owner or operator of any Class IA concentrated animal feeding operation with a wet handling system which also utilizes a flush system shall employ one (1) or more persons who shall visually inspect the *[wet handling system]* **gravity outfall lines, recycle pump stations, recycle force mains, and appurtenances for any release to any containment structure.** Visual inspections shall be made at least *[every twelve (12) hours with a deviation from the twelve- (12-) hour requirement not to exceed three (3) hours]* **once per week**. *The inspections shall focus* on the structural integrity of the collection system and containment structures along with any unauthorized discharges from the flush and wet handling systems. Records shall be maintained by the facility for a minimum of three (3) years on forms approved by the department.

2. Any unauthorized discharges that cross the property line of the facility, or enter the waters of the state from a Class IA concentrated animal feeding operation with a wet handling system that also utilizes a flush system, shall be reported to the department and to all adjoining property owners of the facility within twenty-four (24) hours.

3. Class IA concentrated animal feeding operation with a wet handling system which also utilizes a flush system shall receive at least one (1) on-site inspection by the department each quarter.

4. All Class IA concentrated animal feeding operations with a wet handling system which also utilizes a flush system shall have a secondary containment structure(s) or earthen dam(s). The containment structure(s) or earthen dam(s) shall be sized to contain a minimum volume equal to the maximum capacity of flushing in any twenty-four- (24-) hour period from all gravity outfall lines, recycle pump stations, and recycle force mains.

5. All Class IA concentrated animal feeding operations with a wet handling system which also utilizes a flush system shall have an electronic or mechanical shut-off in the event of pipe stoppage or backflow. For new facilities, the shut-off shall be included as part of the construction permit application.

6. Class IA concentrated animal feeding operations (both new and those operations that wish to expand to Class IA size) are prohibited from the watersheds of the Current, Jacks Fork, and Eleven Point Rivers as described in 10 CSR 20-6.300(1)(B)9.D.

**7. The owner or operator shall visually inspect once per day any lagoon whose water level is less than twelve (12) inches from the emergency spillway. The inspection shall note the level of water below the emergency spillway. A record of these inspections shall be included with the operations annual report.**

(4) Design Standards and Effluent Limitations.

(A) Effluent Limitations Applicable to All Class I CAFOs.

1. New and expanding CAFOs that apply for a construction **or operating** permit after the effective date of 10 CSR 20-8.300 shall have manure litter, and/or process wastewater management systems designed and constructed in accordance with the CAFO manure storage design standard rule 10 CSR 20-8.300.

2. Effluent limits for subsurface waters shall be in accordance with 10 CSR 20- 7.015(7)(E).

3. For NPDES permits only—CAFOs shall comply with effluent limitations as set forth in 40 CFR Part 412, Subpart A through Subpart D, July 1, 2009, without any later amendments or additions, as published by the Office of the Federal Register, National Archives and Records Administration, Superintendent of Documents, Pittsburgh, PA 15250-7954, which are hereby incorporated by reference.

4. There shall be no discharge of manure, litter, or process wastewater to waters of the state from a CAFO as a result of the land application of manure, litter, or process wastewater to land application areas under the operational control of the CAFO, except where it is an agricultural storm water discharge. When manure, litter, or process wastewater has been land applied in accordance with subsection (3)(G) of this rule, a precipitation-related discharge of manure, litter, or process wastewater from land areas under the control of the CAFO is considered to be an agricultural storm water discharge.

5. A chronic weather event is a series of wet weather events and conditions that can delay planting, harvesting, and prevent land application and dewatering practices at wastewater storage structures. When wastewater storage structures are in danger of an overflow due to a chronic weather event, CAFO owners shall take reasonable steps to lower the liquid level in the structure through land application, or other suitable means, to prevent overflow from the storage structure. Reasonable steps may include, but are not limited to, following the department's current guidance on "Wet Weather Management Practices for CAFOs." These practices shall be designed specifically to protect water quality during wet weather periods. The University of Missouri's Missouri Climate Center will determine, within a reasonable time frame, when a chronic weather event is occurring for any given county in Missouri. The Missouri Climate Center's determination will be based upon an evaluation of the one-in-ten (1-in-10) year return rainfall frequency over a ten- (10-) day, ~~ninety-~~ **(90-) day**, one hundred twenty- (120-) day, and three hundred sixty-five- (365-) day operating period.

(B) Additional Limitations for State No-Discharge Permits at Class I CAFOs.

1. There shall be no discharge of manure, litter, or process wastewater into surface waters of the state from the production area.

2. If at any time a CAFO's waste management system is found to be discharging, the department may revoke the CAFO's no-discharge permit and require the CAFO to seek coverage under a NPDES permit.

3. If a discharge occurs at a CAFO with a state no-discharge permit, the owner or operator must submit to the department for review and approval the following documentation: a description of the discharge, including the date, time, cause, duration, and approximate volume of the discharge, and a detailed explanation of the steps taken by the CAFO to permanently address the cause of the discharge that will ensure that a discharge from this cause does not occur in the future.

4. When a discharge occurs at a CAFO, the CAFO will be allowed to maintain coverage under the no-discharge permit when the following two (2) conditions are met:

A. The department determines that the specific cause has been appropriately corrected so that the CAFO does not discharge; and

B. The CAFO has not had two (2) discharges at a given site for the same cause in any five- (5-) year period.

5. If a CAFO has two (2) separate discharge events brought about by the same cause, the department may terminate the no-discharge permit in which case the CAFO will be required to seek coverage under a NPDES permit.

(C) Effluent Limitations Applicable to Class II and Smaller Sized AFOs. When a Class II or smaller sized AFO is designated as a CAFO by the department, the specific effluent limitations will be based upon the department's best professional judgment, but shall not be more stringent than those for Class I CAFOs.

(5) Nutrient Management Plans—In accordance with paragraph (3)(G)1. of this rule, permits shall require the development and implementation of a nutrient management plan. **The nutrient management plan shall be kept current in accordance with paragraph (3)(G) 2 of this rule.** A portion of a CAFO's nutrient management plan includes the engineering design and construction-related documents within a CAFO's construction and operating permit application. The plan also includes annual reports and updates submitted to the department. The plan must comply with the requirements found within the Nutrient Management Technical Standard which will satisfy the criteria in subsections (G), (H), and (I) below. **For NPDES permits, any revisions to the NMP must be submitted to the department for review with the changes from the previous version identified.** The plan must, at a minimum, address the following areas:

(A) Ensure adequate storage of manure, litter, and process wastewater, including procedures to ensure proper operation and maintenance of the storage facilities;

(B) Ensure proper management of mortalities (i.e., dead animals) to ensure that they are not disposed of in a liquid manure, storm water, or process wastewater storage or treatment system that is not specifically designed to treat animal mortalities;

(C) Ensure that clean water is diverted, as appropriate, from the production area. NMPs shall include, as necessary, controls, measures, or BMPs to properly manage storm water runoff at the operation. This would apply only to activities in or around the land application or production area that is under the control of the CAFO owner or operator, whether it is owned, rented, or leased. Examples of such activities could include winter feeding areas, stockpiling of manure and raw materials, or any other regulated CAFO activity that will contribute pollutants to waters of the state;

(D) Prevent direct contact of confined animals with waters of the state;

(E) Ensure that chemicals and other contaminants handled within animal production facilities are not disposed of in any manure, litter, process wastewater, or storm water storage or treatment system unless specifically designed to treat such chemicals and other contaminants;

(F) Identify appropriate site-specific conservation practices to be implemented, including as appropriate buffers or equivalent practices, to control runoff of pollutants to waters of the state;

(G) Identify protocols for appropriate testing of manure, litter, process wastewater, and soil;

(H) Establish protocols to land apply manure, litter, or process wastewater in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater; and

(I) Identify specific records that will be maintained to document the implementation and management of the minimum elements described in subsections (A) through (H) of this section.

(6) Closure of Waste Storage Structures.

(A) Facilities that cease operation, or plan to close lagoons and other waste storage structures, shall comply with the requirements in this section—

1. Class I concentrated animal feeding operations which cease operation shall continue to maintain a valid operating permit or until all lagoons and waste storage structures are properly closed according to a closure plan approved by the department; and

2. Other concentrated animal feeding operations that cease operation shall either close the waste storage structures in accordance with the closure requirements in subsection (6)(B) of this rule or shall continue to maintain all storage structures so that there is not a discharge to waters of the state.

(B) Closure Requirements.

1. Lagoons and waste storage structures shall be closed by removal and land application of all wastewater and sludge;

2. The removed wastewater and sludge shall be land applied at agricultural rates for fertilizer not to exceed the maximum nutrient utilization of the land application site and vegetation grown and shall be applied at controlled rates so that there will be no discharge to waters of the state; and

3. After removal and proper land application of wastewater and sludge, the earthen basins may be demolished by removing the berms, grading, and [revegetation] **establish at least 70% plant density over 100%** of the site so as to provide erosion control, or the basin may be left in place for future use as a farm pond or similar uses.

(7) Concentrated Animal Feeding Operation Indemnity Fund.

(A) Class IA concentrated animal feeding operations utilizing flush systems shall pay an annual fee of ten cents (10¢) per animal unit to the department for deposit in the Concentrated Animal Feeding Operations Indemnity Fund.

(B) The annual fee shall be based upon the animal unit permitted capacity of the facility.

(C) The annual fee shall be collected each year for ten (10) years on the anniversary date of the operating permit. For facilities permitted after June 25, 1996, the annual fee shall commence on the first anniversary of the operating permit. The annual fee for facilities permitted prior to June 25, 1996, shall commence on the first full year anniversary of the permit following June 25, 1996.

(D) In the event the department determines that a Class IA facility has been successfully closed by the owner or operator, all monies paid by such operations into the Concentrated Animal Feeding Operation Indemnity Fund shall be returned to the operation. In no event, however, shall this refund exceed the unencumbered balance in the Concentrated Animal Feeding Operation Indemnity Fund.

(E) The fees referenced in section (7) shall be paid by a check or money order and made payable to the State of Missouri, Concentrated Animal Feeding Operation Indemnity Fund. In the event a check used for the payment of operating fees is returned to the department marked insufficient funds, the person forwarding the check shall be given fifteen (15) days to correct the insufficiency.

(F) Fees shall be submitted to Department of Natural Resources, Water Pollution Control Program, Permit Section, PO Box 176, Jefferson City, MO 65102.

(G) Each payment shall identify the following: state operating permit number, payment period, and permittee's name and address. Persons who own or operate more than one (1) operation may submit one (1) check to cover all annual fees, but are responsible for submitting the appropriate information to allow proper credit for each permit file account.

(H) Annual fees are the responsibility of the permittee. Failure to receive a billing notice is not an excuse for failure to remit the fees.

*AUTHORITY: sections 640.710 and 644.026 RSMo 2000. \* Original rule filed June 1, 1995, effective Jan. 30, 1996. Amended: Filed March 1, 1998, effective March 30, 1999. Amended: Filed May 12, 2008, effective Feb. 28, 2009. Amended: Filed July 14, 2011, effective April 30, 2012.*

*\*Original authority 644.710 RSMo 1996 and 644.026 RSMo 1972, amended 1973, 1987, 1993, 1995, 2000.*